

REMARKS

This responds to the Office Action mailed on October 7, 2005, and the references cited therewith.

Claims 4, 10, 11, 22, 31, 42, and 43 are amended. Claims 1-60 are now pending in this application.

§112 Rejection of the Claims

Claims 1-3, 11-21 and 31-60 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. This rejection is respectfully traversed. The Office Action indicates that the graceful decrement is “supposed to yield a reduced number of products”, and points to page 14 of the specification as reciting an equation that yields a time. However, reading further on page 14, one finds that the graceful decrement is used to update an objective value (t_i), which is further used to calculate an actual quantity (Q_{Ai}) as indicated at lines 32-37. Thus, the graceful decrement is properly described in the application and the rejection should be withdrawn.

Claims 10-12 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 has been amended to depend from claim 8, which contains proper antecedent for “predetermined margin”. Claim 11 has been amended to provide proper antecedent.

§103 Rejection of the Claims

Claims 1-3, 5-8, 10, 16-17, 19-21, 23-26, 28, 30-32, 34-35, 37-41, 43-44, 46-49, 52-56 and 59-60 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kennedy et al. (U.S. Patent No. 6,055,519). This rejection is respectfully traversed. Kennedy et al., fails to describe or suggest at least one element of the claims, and therefore, a proper prima facie case of obviousness has not been established.

The present application deals with the complex problem of meeting customer needs, while optimizing business goals, such as profits. In pure probability calculations, there is an uncertainty of completion of customer orders. Current methods to determine whether or not

customer orders for multiple products can be completed can lead to less than optimal solutions. The present application describes graceful degradation which uses an inverse probability to optimize business goals.

Kennedy et al. describes a computer implemented system and process for negotiation and tracking of sale of goods as stated in the abstract. A vague reference is made to optimizing profits in a sales environment in Column 6, but no information as to how profits are optimized is discussed, other than “This decision process is often complex and may be performed by a finite capacity planning system, a finite supply chain planning system, a finite scheduler, an ATP process, or other such planning method.” **Kennedy et al., does not describe the use of the inverse of the probability of profit** in determining a reduction in quantity, as claimed in each of the claims as amended. This is a significant improvement over the prior art cited. Several of the claims further involve a complex mix of products and quantities, and prior methods of determining which mix of products that can meet complex schedules has been simplistic in comparison to the complexity of the problem, and may not optimize profits in many situations.

The Office Action argues that the step of communicating the reduced quantity to a production management process is inherent once an agreement has been made. The Office Action has not established a *prima facie* case of inherency because, as recited in MPEP § 2112, “In relying upon the theory of inherency, the examiner must provide basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art,” citing Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

The Office Action only argued that the order would be communicated to production and manufacturing. However, the reduced quantity may not be communicated by a computer as claimed, but rather a quantity, or total quantity from multiple orders may be communicated by a human. It need not be communicated by a computer. Claim 1 is for a computerized process. Thus, the Office Action does not even assert that the allegedly inherent characteristic is necessary, let alone provide a basis in fact and/or technical reasoning. Applicant respectfully submits that communicating the reduced quantity to a production management process does not necessarily flow from Kennedy et al.

The Office Action also takes Official Notice that it is old and well known in the manufacturing arts, that, when possible, manufacturers will identify the most profitable product in a set and seek ways to emphasize sales of products with higher profit margins. Applicant respectfully traverses this official notice, and all others in the Office Action and requests the Examiner to provide a reference that describes such an element. Absent a reference, it appears that the Examiner is using personal knowledge, so the Examiner is respectfully requested to submit an affidavit as required by 37 C.F.R. § 1.104(d)(2).

Claims 5-8 appear rejected under Kennedy et al., but depend from claim 4 which was rejected under a combination of references below. These claims are allowable for at least the same reasons as claim 4 below, and in addition, a proper case of inherency has not been established as described above.

Claims 4, 9, 11, 15, 18, 22, 27, 29, 33, 36, 42, 45, 50, 51, 57 and 58 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kennedy et al. (U.S. Patent No. 6,055,519) as applied to claims 13, 31, 39, 43, 49 and 56 above, and further in view of Eder (U.S. Patent No. 5,615,109). This rejection is respectfully traversed, and believed moot in view of the amendments to the claims. Neither reference, nor their combination is believed to teach or suggest the use of inverse probability of profit in determining reduction in quantities. This element is found in each of the independent claims of the present application as amended.

In the event that the claims are still not found allowable, Applicant hereby traverses each inherency rejection and each official notice rejection on the same or similar basis as described above.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6972 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

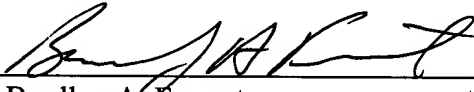
Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 6th day of January, 2006.

Name

Signature